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## State of Utah DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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DIVISION OF OIL GAS & MINING

May 28, 1992

Mr. Larry Drew, Environmental Manager Hecla Mining Company 6500 Mineral Drive, Box C-8000 Coeur d'Alene, ID 83814-1931

RE: Escalante tailings pond test hole

Dear Mr. Drew:

We received your letter dated April 27, 1992 discussing the Escalante tailings pond, suggesting resolution to the issue by some form of consent agreement. It was also proposed to install an additional monitoring well for collection of pertinent hydrogeologic data. We are currently exploring the feasibility of such an arrangement and will in the near future contact you with our conclusion. We concur with your proposal for the installation of a test hole and monitoring well at the site, provided it is planned and drilled correctly. However, the test well must provide the type of data needed for permitting.

We do not have sufficient information at this time to conclude that a single well at the location described in your letter would be sufficient to answer all outstanding questions. We have no objections to proceeding with the well providing the company understands these reservations. The reason that we cannot be more conclusive is that we have never located, in our files, well logs for the three monitor wells, the production wells or a geologic map of the site. This is needed to be certain the test hole will penetrate beds equivalent to those that underlie the pond. In addition the well location should be sited on a water table map of the area to confirm it is actually downgradient. All of this is needed before any adequacy of well site location could be given.

In addition the following information should be compiled from the test well:

- 1. Geophysical and geologist logs from a rotary drilled well. These are needed to determine permeability of underlying beds.
- 2. Aquifer tests, or a drawdown and recovery test of the well, depending on well yield. We have no objections to slug tests but believe that drawdown tests are

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much better for only a little additional cost. The well must be of sufficient diameter for pump installation.

- 3. Water samples for analysis that include the parameters for which the state has quality standards. The first analysis should also include SO<sub>4</sub>, HCO<sub>3</sub>, Cl, NO<sub>3</sub>, Ca, Mg, Na, K, and total and WAD Cyanide.
- 4. Water level data. Needed to determine hydraulic gradient.

If you have questions regarding any of the above subjects, please call Mack Croft at 538-6146.

Sincerely,

Fred C. Pehrson, P.E., Manager

Permits, Compliance & Monitoring Branch

FCP:MGC:dee

cc:

Attorney General's Office

DOGM

Wayne Thomas

P:HECLA.ESC